



SAINTGITS COLLEGE OF APPLIED SCIENCES

VALUE ADDED COURSES 2021—22

# PYTHON AND MACHINE LEARNING



LEARN . GROW . EXCEL

## ABOUT THE COURSE

python is the best language for machine learning. Software Solution developed with python can run on multiple operating system platforms.



**SAINTGITS**  
LEARN. GROW. EXCEL

## OBJECTIVES

The objective of this course is:

- To impart theoretical and practical knowledge in the specialized area of Machine Learning.
- This course is designed to expose students to the frontiers of ML-intensive computing and information systems while providing a sufficiently strong foundation to encourage further research.

THE COURSE IS TO  
EQUIP THE  
STUDENTS WITH  
LATEST  
TECHNOLOGY  
TRENDS IN

The course enables the students to get proficiently in Python programming language and they will get access to the latest information on AI.

## EXPECTED OUTCOMES

- Easily identifies trends and patterns
- No human intervention needed (automation)
- Handling multi-dimensional and multi-variety data

## DURATION

30 Hrs.



## FEATURES

Machine learning is a type of artificial intelligence that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.



**SAINTGITS**  
LEARN.GROW.EXCEL

## RELEVANCE

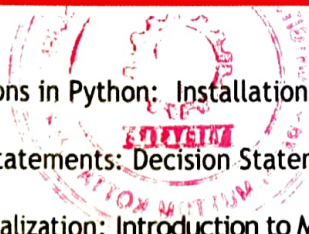
This course is designed to equip the students with the latest machine learning features.

## ADVANTAGES

- Machines help man to reduce his job.
- Machines reduce the time taken to do a job.
- Machines can do the job of more persons in less time.



## CONTENTS



Module 1: Foundations in Python: Installation of Python, Data types and variables in Python, Operators in Python.

Module 2: Control statements: Decision Statements: if, if...else, else...if, While and for loop, Break & Continue.

Module 3: Data Visualization: Introduction to Matplotlib, Data Preparation and visualization.

Module 4: Foundations in Machine Learning: Types of Machine Learning Algorithm-Supervised, Unsupervised Algorithm. Building Machine Learning Models.

Module 5: Introduction to Deep Learning: Introduction to Artificial Neural Network.



**SAINTGITS**  
LEARN.GROW.EXCEL



## **SAINTGITS COLLEGE OF APPLIED SCIENCES**

Pathamuttom, Kottayam - 686532

Phone : 0481 - 2433787

e-mail : [scas@saintgits.org](mailto:scas@saintgits.org), Web : [www.saintgits.org](http://www.saintgits.org)

**LEARN . GROW . EXCEL**



## PYTHON AND MACHINE LEARNING

### SYLLABUS

#### Module 1

Foundations in Python: Installation of Python- Data types, variables, list, Operators in Python.

#### Module 2

Control statements - if, if...else, else...if, loop, Arrays in python- One Dimensional and Two Dimensional Arrays in Python.

#### Module 3:

Data Visualization- Data Preparation and visualization. Introduction to Matplotlib, Line chart, Pie charts and Bar charts.

#### Module 4

Foundations in Machine Learning: Types of Machine Learning Algorithms, Supervised, Unsupervised Algorithm. Building Machine Learning Models.

#### Module 5

Introduction to Deep Learning: Introduction to Artificial Neural Network.



#### AMPUS

ottukulam Hills, Pathamuttom P. O., Kottayam – 686 532, Kerala | Tel: +91 481 2433787 | [scas@saintgits.org](mailto:scas@saintgits.org)

#### CORPORATE OFFICE

1 Floor, Unity Building, K. K. Road, Kottayam – 686 002, Kerala | Tel: +91 481 2584330, 2300365 | [mail@saintgits.org](mailto:mail@saintgits.org)

[www.saintgits.org](http://www.saintgits.org)

**LEARN . GROW . EXCEL**

Roll No	Name of Student	Month	11	11	11	11	11	11	11	11	12	12	12	12	1	2	3	4	4	Roll No	4	4	4	5	5	5	5	5	5	6	6	6	6	6
		Date	9	29	29	30	30	30	1	1	1	7	7	25	25	21	4	11	18		22	22	6	16	18	18	18	19	13	14	14	16	16	
		Hour	6	1	2	1	2	4	2	4	5	2	4	6	6	6	6	6	6		2	5	5	3	2	3	4	3	1	2	5	2	4	6
1	ABHIJITH G NAIR		X	X	X	X	X	X	X	a	a	a	X	X	X	X	X	X	X	1	X	X	X	X	X	a	a	a	X	X	X	X	X	X
2	ABHISHEK A K		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2	X	X	X	X	X	X	X	a	X	X	X	X	X	X
3	ABIN BIJU		X	a	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3	X	X	X	X	X	a	a	a	X	X	X	X	X	X
4	ABY CYRIAC		X	X	X	X	X	X	X	a	a	a	X	X	X	X	X	X	X	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	ACXA MARY REJI		X	X	X	a	a	a	a	X	X	X	X	X	X	X	X	X	X	5	X	X	a	X	X	X	X	X	X	X	X	X	X	X
6	AISWARYA AJUKUMAR		a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6	a	X	X	X	X	X	X	X	X	X	X	X	X	X
7	AKASH GOVIND KRISHNA		X	X	X	a	a	a	a	X	X	X	X	X	X	X	X	X	X	7	X	X	X	X	X	a	a	a	X	X	X	X	X	X
8	AKSA BIJU		X	a	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9	AKSHARA SUNIL KUMAR		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10	AKSHAY SANTHOSH		X	X	X	X	X	a	a	a	X	X	X	X	X	X	X	X	X	10	X	a	a	a	a	X	X	X	X	X	X	X	X	X
11	ALAN SABU		X	a	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12	ALEN JACOB KURIAN		X	X	X	X	X	X	X	X	X	a	a	X	X	X	X	X	X	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13	ALEN ROJI PHILIPOSE		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	a	X	X	X	X	X	X	X	X	X	X	X	X	X
14	ALWIN		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	a	X	X	X	X	X	X	X	X	X	X	X	X	X
15	AMAL S KOTTARAM		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	15	X	X	X	a	X	X	X	X	X	X	X	X	X	X
16	AMAL SATHEESAN		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	16	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17	ANAGHA NAIR		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18	ANANDHA KRISHNAN P K		X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	18	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19	ARJUN M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	19	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20	ASHISH OOMMEN ABY		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21	ASHNA SATHEESH		X	X	X	X	X	X	X	a	a	X	X	X	X	X	X	X	X	21	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22	ASIF SUBAIR		a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23	ASWIN A		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24	BIJESH P B		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	24	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25	BIJINA SARA BIJU		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	25	a	X	X	X	X	X	X	X	X	X	X	X	X	X
26	CLARIN JOE		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	26	X	X	a	X	X	X	X	X	X	X	X	X	X	X
27	DARSANA RAJESH		a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	27	X	X	X	a	X	X	X	X	X	X	X	X	X	X

*Handwritten signature*

*Handwritten signature*





Roll No	Name of Student	Month	11	11	11	11	11	11	11	12	12	12	12	12	12	1	2	3	4	4	4	Roll No	14	5	5	5	5	5	5	6	6	6	6	6	6							
		Date	9	29	29	30	30	30	30	1	1	1	9	9	2	8	8	9	11	18	20		20	16	16	18	18	18	19	13	14	14	16	16	16							
		Hour	6	1	2	1	2	3	4	2	4	5	4	6	6	6	6	6	6	6	2		5	3	2	3	4	3	1	2	5	2	4	6								
55	ROHITH R		X	X	X	a	a	a	X	X	X	X	X	X	X	X	X	X	X	X	X	55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
56	S VYSHAK		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
57	SAI GOVIND S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
58	SAJITH M JOHN		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
59	SHAHIRSHA THANGAL		X	a	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60	SHIBIN S VARGHESE		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
61	SHINE VARGHESE E		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	61	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
62	SHYNO ELSA PAUL		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	62	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
63	SIDHARTH S NAIR		a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	63	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
64	SNEHA SHAJAN		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	64	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
65	SOBIN THOMAS SONY		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
66	SREEDEEP D		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	66	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
67	SRUTHIKA R		a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	67	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
68	SUBIN SUNIL		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	68	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
69	VISAKH P S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	69	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
70	YABIN PAUL THOMAS		X	X	X	a	a	a	a	X	X	X	X	X	X	X	X	X	X	X	X	70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*Handwritten signature*

*Handwritten signature*

